

Listing of Claims

1.(Currently Amended) A liquid intumescent coating composition comprising ~~a resin system comprising~~ at least one polymeric component, said at least one polymeric component comprises solid thermoplastic resin, at least one ethylenically unsaturated monomeric component, and at least one intumescent ingredient component comprising an acid source in combination with another intumescent ingredient, and a chemical initiator for initiating a reaction to cure the coating composition ~~being curable~~ to a solid state by free radical polymerization.

2.(Canceled)

3.(Currently amended) A liquid intumescent coating composition as claimed in claim 1, wherein the ~~at least one polymeric component~~ solid thermoplastic resin comprises at least one homopolymer, copolymer and/or terpolymer of methacrylic resin.

4.(Currently amended) A liquid intumescent coating composition as claimed in claim 1, wherein the ~~at least one polymeric component~~ solid thermoplastic resin comprises a meth(acrylate) copolymer.

5.(Currently amended) A liquid intumescent coating composition as claimed in claim 1, wherein the ~~at least one polymeric component~~ solid thermoplastic resin comprises the reaction product of at least one of styrene or vinyl toluene together with at least one of any of the following: methyl methacrylate, ethyl methacrylate, n-butyl methacrylate, isobutyl methacrylate, t-butyl methacrylate, 2-hydroxy ethyl methacrylate, 2-hydroxy propyl methacrylate, 2-ethylhexyl acrylate, methyl acrylate, ethyl acrylate, n-butyl acrylate, isobutyl acrylate, t-butyl acrylate, 2-hydroxy ethyl acrylate, 2-hydroxy propyl acrylate, and 2-ethylhexyl acrylate.

6.(Currently amended) A liquid intumescent coating composition as claimed in claim 1, wherein the ~~at least one polymeric component~~ solid thermoplastic resin comprises the reaction product of one or more diene together with at least one any of the following: styrene, vinyl toluene, vinyl chloride, vinyl acetate, vinylidene chloride, and vinyl versatate esters.

7.(Canceled)

8.(Currently amended) A liquid intumescent coating composition as claimed in claim 1, wherein the ethylenically unsaturated monomeric component comprises any of the following either alone or in combination: methyl methacrylate, ethyl methacrylate, n-butyl methacrylate, isobutyl methacrylate, t-butyl methacrylate, 2-ethylhexyl acrylate, methyl acrylate, ethyl acrylate, n-butyl acrylate, isobutyl acrylate, t-butyl acrylate, and 2-ethylhexyl acrylate.

9.(Previously presented) A liquid intumescent coating composition as claimed in claim 1, wherein the resin system constitutes from 20% to 60% of the coating composition.

10.(Previously presented) A liquid intumescent coating composition as claimed in claim 1, wherein said at least one polymeric component constitutes from 10% to 50% by weight of the resin system.

11.(Previously presented) A liquid intumescent coating composition as claimed in claim 1, wherein said at least one ethylenically unsaturated monomeric component constitutes from 30% to 90% by weight of the resin system.

12.(Currently amended) A liquid intumescent coating composition as claimed in claim 1, wherein said another intumescent ingredient comprises a carbon source and a gas source.

13.(Currently amended) A method of curing a liquid intumescent coating composition to a solid state by free radical ~~polymerisation~~ polymerization comprising the step of adding an organic peroxide initiator to the liquid intumescent coating composition, wherein the coating composition

comprises at least one polymeric component, said at least one polymeric component comprises solid thermoplastic resin, at least one ethylenically unsaturated monomeric component, and at least one intumescent ingredient component comprising an acid source in combination with another intumescent ingredient.

14.(Canceled)

15.(Currently amended) A method as claimed in claim ~~14~~13, wherein the organic peroxide comprises any of the following either alone or in combination: diacyl peroxides, ketone peroxides, peroxyesters, dialkyl peroxides, hydroperoxides and peroxyketals.

16.(Previously presented) A method as claimed in claim 13, wherein the coating composition is cured in less than 60 minutes at a temperature of 20°C +/-3°C.

17.(Previously presented) A method as claimed in claim 13, wherein less than 5% by weight of volatile components is lost by evaporation during the conversion of the composition to a solid state by the addition of an organic peroxide.

18.(Currently amended) A method as claimed in claim 13, wherein said another intumescent ingredient comprises a carbon source and a gas source.

19.(Previously presented) A method as claimed in claim 13, wherein said acid source is selected from the group consisting of: ammonium polyphosphate, melamine phosphate, magnesium sulphate, and boric acid.

20.(Previously presented) A method as claimed in claim 13, wherein said acid source constitutes from 35% to 65% by weight of the at least one intumescent ingredient component.

21.(Previously presented) A method as claimed in claim 13, wherein said acid source is coated to further reduce solubility with a coating selected from the group consisting of: silane, melamine, or melamine formaldehyde.

22.(Previously presented) A liquid intumescent coating composition as claimed in claim 1, wherein said acid source is selected from the group consisting of: ammonium polyphosphate, melamine phosphate, magnesium sulphate, and boric acid.

23.(Previously presented) A liquid intumescent coating composition as claimed in claim 1, wherein said acid source constitutes from 35% to 65% by weight of the at least one intumescent ingredient component.

24.(Previously presented) A liquid intumescent coating composition as claimed in claim 1, wherein said acid source is coated to further reduce solubility with a coating selected from the group consisting of silane, melamine, or melamine formaldehyde.

25.(Previously presented) A liquid intumescent coating composition as claimed in claim 1, wherein said acid source is ammonium polyphosphate coated with melamine formaldehyde.